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10/529,002	12/15/2005	Joachim Haedicke	2002P00990WOUS	8810

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EXAMINER

ROST, ANDREW J

ART UNIT	PAPER NUMBER
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3753

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03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,002	Applicant(s) HAEDICKE ET AL.	
	Examiner Andrew J. Rost	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/16/2009 has been entered.

2. Claim 22 is currently amended. No claims are newly added. Claims 1-13 have been canceled. Presently, claims 14-28 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14-18, 23-24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolze et al. (U.S. Patent 4,697,608).

Regarding claim 14, Kolze et al. discloses a valve assembly with a housing (12) having a passageway (as seen in Figs 4 & 6), comprising a valve for closing the gas

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path, wherein the valve includes an armature housing (58) and having a mobile magnetic anchor (72) in said armature housing, a valve seat (70), said mobile magnetic anchor including a valve closing element which presses on said valve seat to close said passageway (tip 80 closes the flow path with contact to the valve seat), an electromagnetic coil (18) for activating said mobile magnetic anchor and valve closing element to close the passageway and said electromagnetic coil is arranged as a separate component outside of said armature housing on a magnetic insert (fig. 4 and 6).

Note: the material flowing through the device is not given patentable weight unless the device is not capable of functioning with the intended fluid(s). See MPEP 2115.

In Claim 15, Kolze et al. disclose the electromagnetic coil arranged separate from the passageway.

In Claim 16, Kolze et al. disclose the electromagnetic coil outside of the armature housing and is able to be detached.

In Claim 17, Kolze et al. disclose the electromagnetic coil outside of the housing (12).

In Claim 18, Kolze et al. disclose the electromagnetic coil partially protruding outside of the housing (12).

In Claim 23, Kolze et al. disclose that the armature housing has one section set inside the housing (12) and another section projecting from the housing (12).

In Claim 24, Kolze et al. disclose a portion of the armature section set inside of the housing (12) similar in structure to that of housing sections of a magnetic insert.

Regarding claim 26, Kolze et al. discloses a magnetic insert for an electromagnetic valve for inserting into a flow passageway including a flow path (as seen in Figs 4 & 6), wherein the magnetic insert comprises an armature housing (58) and having a mobile magnetic anchor (72) in said armature housing, a valve seat (70), said mobile magnetic anchor including a valve closing element (80) which presses on said valve seat to close said flow path, an electromagnetic coil (18) for activating said mobile magnetic anchor (72) and valve closing element (80) to close said flow path and said electromagnetic coil arranged as a separate component outside of said armature housing on a magnetic insert.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolze et al., and in view of Charboneau et al. (U.S. Patent 3,849,031).

In Claim 19, Charboneau et al. [Column 2, Lines 12-23] teaches the use of armature guide sections as a means to prevent rotation on the armature and to keep it

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parallel to the axis. While in Claim 21, Kolze et al. [Abstract, Lines 3-6; Column 2, Lines 8-32; Column 5, Lines 6-8, 20-23] teaches the use of plastic armature guide sections due to costly replacement of armature, armature guides, coils, and mountings.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the electromagnetic valve disclosed by Kolze et al. with armature guide sections taught by both Charboneau et al. and plastic guides disclosed by Kolze et al. to keep the armature parallel to the axis of motion and keeping the armature from rotating due to magnetic forces as well as preventing the replacement of costly parts.

3. Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolze et al., in view of Charboneau et al., and in further view of Tirelli (U.S. Patent 3,945,399).

In Claim 20, Tirelli '399 [Column 6, Lines 18-31] teaches the use of an anchor guide section positioned inside of a valve body (1) for sealing engagement and an anchor guide section positioned outside of the valve body (1) as shown in Figure 4 of Tirelli '399 below. In Claim 25, Tirelli '399 [Column 5, Lines 9-13; Column 6, Lines 32-43] teaches the use of counter-anchor as a device to attract (or repel) the magnetic anchor (armature) via a magnetic field as a result of an electric current applied to the electromagnetic coils. It is clear from Figure 4 above that at least one of electromagnetic coil, armature housing sections, counter-anchor are provided on a second armature housing section projecting from the valve body (1). Therefore it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to provide the electromagnetic safety valve disclosed by Kolze et al. with a counter-anchor, coil, and armature housing projecting from the housing (12) to provide support for armature travel into and out of the housing for sealing and opening.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolze et al., in view of Tirelli (U.S. Patent 3,899,003).

In Claim 22, Tirelli '003 (Column 3, Lines 66-68; Column 4, Lines 1-25) teaches the use of a counter-anchor in an armature housing limiting the armature stroke path due to magnetic attractive forces. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the electromagnetic valve disclosed by Kolze et al. with an counter-anchor that due to magnetic forces, limits the travel of the armature stroke path.

6. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaselow (U.S. Patent 4,830,602) in view of Kolze et al.

Kaselow discloses a valve assembly having an electromagnetic valve (15), a tap axle (9) being located within a flow path of a fluid through a valve body (13) wherein the tap axle is pivoted (rotated about an axis) to permit or prevent a flow of fluid through the valve body. Kaselow does not expressly disclose the structure of the electromagnetic valve. However, Kolze et al. teach a valve assembly with a housing (12) having a passageway (as seen in Figs 4 & 6), comprising a valve for closing the gas path,

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wherein the valve includes an armature housing (58) and having a mobile magnetic anchor (72) in said armature housing, a valve seat (70), said mobile magnetic anchor including a valve closing element which presses on said valve seat to close said passageway (tip 80 closes the flow path with contact to the valve seat), an electromagnetic coil (18) for activating said mobile magnetic anchor and valve closing element to close the passageway and said electromagnetic coil is arranged as a separate component outside of said armature housing on a magnetic insert (fig. 4 and 6) in order to provide an electromagnetic valve that can be assembled in pieces for ease of manufacturing the electromagnetic valve (col. 2, lines 53-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the electromagnetic valve of Kaselow as the electromagnetic valve in assembly as taught by Kolze et al. in order to provide an electromagnetic valve that can be assembled in pieces for ease of manufacturing the electromagnetic valve.

Response to Arguments

7. Applicant's arguments filed 3/16/2009 have been fully considered but they are not persuasive.

8. In response to applicant's argument that Kolze et al. (4,697,608) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir.

1992). In this case, Kolze et al. disclose an electromagnetic valve assembly (i.e., a solenoid valve) that is assembled through various sub-assemblies in order to either prevent or permit the flow of a fluid through the valve assembly.

9. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the various references relied upon teach various aspects associated with electromagnetic valves.

Conclusion

11. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew J. Rost whose telephone number is 571-272-2711. The examiner can normally be reached on 7:00 - 4:30 M-Th and 7:00 - 12:00 Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. J. R./
Examiner, Art Unit 3753

/Stephen M. Hepperle/
Primary Examiner, Art Unit 3753